Xcel Energy℠

414 Nicollet Mall
Minneapolis, Minnesota 55401-1993

April 13, 2005

Robert Schroeder, Chair
Minnesota Environmental Quality Board
3rd Floor, Centennial Office Building
658 Cedar Street
St. Paul, MN 55101

MONTICELLO SPENT NUCLEAR FUEL STORAGE PROPOSAL
COMMENTS ON DRAFT SCOPE OF THE ENVIRONMENTAL IMPACT STATEMENT
Docket No: 04-87-CON-Monticello

Dear Mr. Schroeder:

Northern States Power Company d/b/a Xcel Energy ("Xcel Energy") provides the following comments on the draft scoping decision, issued by your staff on March 11, 2005, for the Environmental Impact Statement concerning the expansion of spent nuclear fuel storage at the Monticello Power Plant

First let me compliment your staff on the March 11th draft. It is apparent that a great deal of thought and effort went into the preparation of the document. In general, we believe the draft scoping decision strikes the proper balance. It identifies the important issues to be addressed in the EIS and focuses on those environmental issues that will be germane to the Public Utilities Commission's Certificate of Need decision. As the result, we have very few comments to offer. Most are clarifications to some of the factual statements in the document you may wish to consider.

Term of Storage. On page 4, the draft scoping decision expresses the opinion that it is unlikely that the spent fuel stored at Monticello would fall within the initial 77,000 tons of repository space authorized in the Nuclear Waste Policy Act. If one assumes that all of the nuclear fueled plants, currently in operation, continue to operate through their 40-year license terms, and you assume that spent fuel is shipped in order of age, then much, but not all, of the spent fuel generated at Monticello since it began operating will fall within the initial capacity limit.

However, the Yucca Mountain Environmental Impact Statement estimates the physical capacity of the site is significantly higher than 77,000 tons. We recommend the Board include a summary of the discussion of the physical capacity of Yucca Mountain from the Department of Energy's EIS.

Economic Analyses. At page 5 in section D, (and later at page 7) the draft indicates that the EIS will incorporate by reference economic analyses from the Department of Commerce and others. Many of the agency staff have suggested that the draft EIS should be completed before hearings are started. Therefore economic analyses that normally would be part of hearing testimony may not be available in time to publish in the draft EIS. We believe the scope of the EIS should include an economic analysis that can be accomplished as part of the Board's alternatives examination without waiting for information that may first be presented in testimony from parties. We suggest the scope make clear that the EIS will contain information available prior to hearing.

Distributed Generation Alternative. The draft scoping decision indicates the Board intends to examine an alternative to continued operation of the Monticello plant designed around the concept of small, distributed generation. At the public meeting, April 4th, there was some discussion of defining the characteristics of the alternative in more detail prior to issuing a final scoping decision. We believe the concept would benefit from some screening work to identify viable candidate technologies along with performance and cost characteristics. We recommend the Board not attempt to fully define the alternative in its scoping decision but rather discuss the steps it intends to take to refine the concept.

Canister Loading Operations. The second paragraph under the caption "Operation" on page 14 includes the following sentence. "The shielded lid to the canister is installed underwater, the canister is dried, and then welded and bolted shut." We recommend the description be expanded slightly to make it clear that the canister is inside the transfer cask during loading operation, the canister lid is installed underwater, the canister lid is welded shut, and then, after other drying operations and inspections, the transfer cask is sealed with the canister inside by bolting the transfer cask's lid in place.

Thermal Discharges to the Mississippi River. On page 18, in the discussion of impacts of thermal discharges to the Mississippi River the draft scoping document errantly identifies the NRC as the responsible agency. It is the Minnesota Pollution Control Agency that administers NPDES permitting requirements related to thermal discharges to water bodies in Minnesota.

Thank you for your consideration of these few comments. We look forward to working with your staff to provide some of the information needed to prepare a high quality EIS. We stand ready to assist in whatever way we can.

Sincerely,

James Alders

JAMES ALDERS
MANAGER REGULATORY PROJECTS

c. MPUC service list Docket E002/CN-05-123

In the Matter of Xcel Energy for a Certificate of Need to Establish an Independent Spent Fuel Storage

E002/CN-05-123
2-22-2005 (service list from ALJ – S. Mihalchick)

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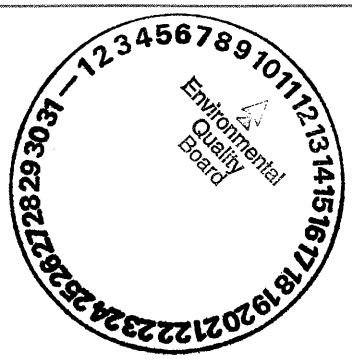

April 6, 2004

John N. Wachtler
Minnesota Environmental Quality Board
3rd Floor Centennial Building
658 Cedar Street
St. Paul, Minnesota 55155

RE: **Comments of the Minnesota Department of Commerce on the Draft EIS Scoping Decision**
EQB Docket No: 04-87-CON-Monticello

Dear Mr. Wachtler:

The Energy Division of the Minnesota Department of Commerce (Department) offers the following comments on the Minnesota Environmental Quality Board's (EQB) *Draft Environmental Impact Statement Scoping Decision and Scoping Environmental Assessment Worksheet* (Draft EIS). The Department notes that EQB's website states that "EQB staff is particularly interested in comments regarding the following three issues:

1. The scope of state versus federal jurisdiction, including state jurisdiction over radionuclide air emissions;

2. The specific definition of a feasible system-wide "distributed generation" option based primarily on renewable fuels; and

3. The identification of any additional environmental issues not related to radiological safety or related health impacts.

The Department offers no comment on the first and third issues above; there are other state agencies with staff better trained in matters related to jurisdiction regarding radionuclide air emissions and general environmental issues. Regarding the second issue, the Department notes that the Draft EIS states:

> The EIS will analyze the feasibility and environmental impacts of reasonable alternatives to continued operation of the Monticello Generating Plant. For this analysis, the EIS will incorporate by reference the economic analysis by the Minnesota Department of Commerce and other parties to the Certificate of Need proceeding at the PUC...

> **Economic Feasibility of Alternatives**. The analysis of the economic feasibility will cover the same alternatives for which environmental impacts are evaluated, but will incorporate by reference the analysis of the Department of Commerce in the CON proceeding.

First, the Department has no objection to the EQB incorporating the economic analysis of the Department's forthcoming testimony by reference. Such an approach is an efficient method for incorporating economic analysis into the EIS because it would avoid duplication of effort by state agencies. Similarly, at this time the Department intends to rely upon the EQB's EIS for information regarding the environmental and socioeconomic impact of Monticello and the various alternatives.

Second, in order for the Department's economic analysis to fulfill this role the EQB and Public Utilities Commission (PUC) need to agree on the alternatives that are reasonable to include in their proceedings. Further, regarding the distributed generation option, it will be necessary for the EQB and PUC to specify, at a minimum, the specific sizes and types of the components of this alternative. Alternatively, the PUC and EQB could order Xcel to develop an alternative that would be used in both proceedings. In either case, without a well-defined alternative the Department would not be able to perform an economic analysis because the basic inputs for the analysis would not be known. For example, there are virtually limitless combinations of types that could be included such as distributed generation using wind, solar, biomass, etc., energy conservation, and so forth. The complications introduced by the variety of types is compounded by the flexibility in the size of the various components. Therefore, the Department recommends that, if the EQB decides to pursue this option, the EQB's scoping decision should include the specific sizes and types of the components of the distributed generation option.

The Department is available to answer any questions that you may have on these *Comments*.

Sincerely,

STEVE RAKOW
Rates Analyst

SR/ja

COMMENT ON SCOPE OF DRAFT ENVIRONMENTAL IMPACT STATEMENT

Monticello Dry Cask Storage

Formal Comments on the draft EIS Due by April 13, 2005

www.eqb.state.mn.us

Your comments on the EIS will become part of the formal record. The following questions are just a guide.

- Have we overlooked or missed something important?
- What aspect of the proposed project concerns you?
- What part of the approval process is unclear?

I can't say I agree with Nuclear Energy on any front. With that said, I understand it powers our homes and businesses, and it was and still is thought to be safe. We've had it for a long time.

- Does the EIS look at the effects of taking that much water 14,000 gallons a minute (I heard estimated) from the Mississippi?
- With the costs of transfer and storage of waste environmentally & $wise, would/at something like biomass solar, geothermal, and wind all together be cheaper, create less waste, & be environmentally safe & reliable?
- I would like to see in the EQB an extensive look at policy relating to health & safety in the state of MN, concerning drinking water and possible accidents

(OPTIONAL)

Name: Andy Edgar

Address 900 Lomo Ave #16, St Paul, MN 55103

Use back of the page (or additional sheets).

Please mail--or e-mail--comments on the draft EIS by February 22, 2005 if possible to:

John Wachtler
MEQB Energy Facility Permitting
658 Cedar Street, 300 Centennial Building
Saint Paul, Minnesota 55155
John.wachtler@state.mn.us

Lucille M. Hick
2725 15th Street North
St. Cloud MN 56303
March 30, 2005

Environmental Quality Board
658 Cedar Street
St. Paul MN 55115

To Whom It May Concern:

I am writing this letter in opposition to Excel Energy continuing for twenty years to have their nuclear power plant operating in Monticello, Minnesota.

Very truly yours,

Lucille M. Hick

Lucille M. Hick

LMH

COMMENT ON SCOPE OF DRAFT ENVIRONMENTAL IMPACT STATEMENT

Monticello Dry Cask Storage

Formal Comments on the draft EIS Due by April 13, 2005

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Your comments on the EIS will become part of the formal record. The following questions are just a guide.

- Have we overlooked or missed something important?
- What aspect of the proposed project concerns you?
- What part of the approval process is unclear?

- I feel the EIS should deal with issues of uncertainty. What if Yucca Mountain never comes through - what if the spent fuel is left indefinitely on-site?
- Should the EIS address the fact that there will now be two dry cask storage facilities on the same stretch of the Mississippi?
- Does the EIS only address groundwater contamination? Why not surface water? Millions of people live downstream of the proposed site.
- If there were an accident, how would this affect the river and everyone downstream? Can the EIS approach the economic and health issues associated with the risk of an accident?
- The proposed storage site is classified as a "Site of High Biological Diversity" - must it be stored there?

(OPTIONAL)

Name: SARA JOHNSON

Address 749 CASE AVE ST PAUL MN 55106

Use back of the page (or additional sheets).

Please mail--or e-mail--comments on the draft EIS by February 22, 2005 if possible to:

John Wachtler
MEQB Energy Facility Permitting
658 Cedar Street, 300 Centennial Building
Saint Paul, Minnesota 55155
John.wachtler@state.mn.us

Additional Comments

- The industry speaks only of the federal government's "obligation" to take the spent fuel off their hands. What of the industry's obligation to take into account the possibility that the federal government may never make good on their commitment to remove the spent fuel?
- It seems that radiation + safety analysis should include risk analysis: terrorist attacks, accidents, etc. The NRC seems to operate as a body that issues permits, not as a body that addresses the unique environmental safety issues. This is the role of the EQB - please don't leave it in the hands of the NRC.

John Wachtler

From: GardenClflower@aol.com

Sent: Wednesday, April 13, 2005 4:31 PM

To: john.wachtler@state.mn.us.

Subject: re:monticello storage

Mr. Wachtler:
It is hard for me to believe that these power companies continue to operate without a better plan for this time. I attended public meetings over 16 years ago on what to do with the problem of the nuclear rods and opposed having them buried near a major water resouce in Minnesota. I will oppose increasing the storage for the rods at the Monticello plant. In addition, I fear what a terrorist attack on those pools would do. I live a little over 10 miles away from the Monticello plant.
I would have liked to have seen nuclear power phased out for a better alternative way or a plan to recyle or reusing the rods today.
Dawn Froelich

A Feasible Distributed Generation option based on Renewable Fuels and Wind Energy

A business model for renewable fuels and fuel efficiency needs to be based on distributed generation with Combined Heat and Power (CHP) use. Central station power plants waste most of their fuel heat value, consume water to discard the heat and are not efficient in rapidly changing load situations. The evaporated water is a green house gas.

Several renewable energy conversion technologies could be used to replace Monticello but the most important and economically viable are manure digestion with added substrates and wind power systems. This can be the core of a distributed CHP and wind energy business park.

The main added fuel substrate that is currently plentiful in Minnesota from existing agricultural practice would be corn stover, bailed from heavy soils and fed into the methane digester in balance with local manure resources. After fuel is digested from the stover and manure, a stable fertilizer is available and the organic material from solids separation can be spread back onto light soils. The removal of stover allows best practices of no-till agronomy which enhances soil health and avoids the oxidation of deep soil organic matter. The Iowa Energy Center estimates net gains in soil organic matter from no-till corn, which is made possible by corn stover removal.

Biogas fuel can provide process heat to the methane digester and be stored on site for on demand delivery to supply electricity either as base load or swing plant or in response to thermal loads. Numerous Gensets can be employed to efficiently ramp up and down to meet changing loads hour by hour. This will fit with local injection of intermittent wind energy.

A model plant might have twelve 500kw gensets using familiar diesel engines of mass produced models. The location could also be used for the injection of 6MW of wind energy capacity which could be firmed to the needs of the market at that point of injection. This should simplify the integration of wind energy into the electric transmission grid.

One hundred of these Renewable Energy Parks would provide the 600MW capacity needed to replace Monticello. Each of the Parks would be an attractive location for other Bio Businesses to locate and use the thermal resources along with the electric capacity. Bio-refineries for corn and soybeans would be particularly welcome as their effluent, fed to the digester, would contribute to high biogas yields.

Corn stover sold to the Park could raise net gains to local Farmers by as much as 50% per acre. This outcome will add to farm land value.

Environmental issues not related to radiological safety

All future generation choices should be compared using a metric of Net Emissions Intensity per MWh of electric generation. In the calculation of those emissions for nuclear generation in central station power plants the water heated to evaporation should be counted as the green house gas that it is. Since the same nuclear fuel could be more efficiently used in a distributed generation CHP atomic engine located at a thermal load, that known double use of fuel should be considered. That is, any central station power plant dumping heat from fuel should be assessed the emissions of water vapor and the emissions of the fuel needed to make up for that lost thermal resource. This seems to be a social net value and fitting for a public regulatory body to examine.

The Net GHG emissions of a distributed Renewable Energy Park which is fueled by wind and manure and corn stover-derived methane biogas and uses the thermal energy for process heat would have a very strongly negative GHG emission. A nuclear central station plant requires fossil fuels to prepare the nuclear fuel and that has GHG emissions.

Compared to the standard of central station coal which I believe has an emission intensity of around 1 ton CO2 per MWh, the burning of bio-mass derived methane would reduce the GHG emission intensity by about 20 times the CO2 value per MWh of electric power produced.
The additional effect of corn stover removal allowing no-till practices of corn could save huge amounts of GHG by CO2 sequestration of carbon organic matter in the top 8 inches of soil. The current practice of deep tillage to bury the stover and warm the soil allows the rapid oxidation of organic matter from the soil. It also leads to soil erosion from tillage.

By changing this 600 MW plant to Renewable Resource CHP configuration from central station nuclear a net reduction in GHG emissions intensity should be credited to the Xcel system.

John Wachtler

From: Mary Curtis [mtess@minn.net]
Sent: Friday, March 25, 2005 11:15 AM
To: John.Wachtler@state.mn.us
Subject: nuclear waste

Dear Mr. Wachtler:

Please carefully consider all ramifications of nuclear waste storeage. This waste should be stored in the absolutely safest place in this world - where there are NO people and no surrounding sites on which it could have a negative affect. That would certain not include the highly populated area around Monticello. And please continue to encourage ways for us to live without creating any more of this terrible hazard.

Mary Curtis